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QUALCOMM INCORPORATED
5775 MOREHOUSE DR.
SAN DIEGO, CA 92121

EXAMINER

DAFTUAR, SAKET K

ART UNIT	PAPER NUMBER
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2451

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/626,048	Applicant(s) SAIDI ET AL.	
	Examiner SAKET K. DAFTUAR	Art Unit 2451	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25,27,29,31 and 33-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25,27,29,31 and 33-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. Applicant's submission filed on June 5th, 2009 has been entered. Claims 1-25, 27, 29, 31 and 33-36 are presented for the further examination.

Interview / Remarks

2. Examiner has taken a note from the interview conducted on November 21st, 2008 and has contacted applicant assigned representative Mr. Raphael, Freiwirth with proposal to amend the claims in order to expedite the prosecution and seek an authorization for an examiner amendment (allowance). After discussing the case with primary examiner Mr. Dinh, the examiner proposes to amend the independent claims to include "automatically suppressing only the one or more silence frames..." and to include the subject matter from claims 4-6 in the independent claims. The applicant assigned representative also has brought claim 6 into examiner's attention and indicated the allowable subject matter. However, during the phone conversation, applicant assigned representative Mr. Raphael Freiwirth Reg. no. 52,918 and Mark E. Olds, Reg. No. 46,507 declines examiner proposal for examiner amendment and insisted an office action.

Response to Arguments

3. Applicant's arguments filed June 5th, 2009 have been fully considered but they are not persuasive. As per arguments filed on June 5th, 2009, applicant argues in substance that:

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a. Yao does not does not drop “silence” frames at a predetermined rate but rather simply discloses dropping frames at a predetermined rate which may be silence frames or data frames.

In response to applicant argument a), Yao discloses dropping data frames at predetermined time intervals or frames are dropped on a continuous basis and briefly discloses that data frames are dropped by processor at a predetermined, fixed rate (see column 10, line 55 - column 12, line 50). Yao discloses determining communication channel quality and improving channel quality by measuring channel error rates, decreasing channel error rate, dropping silence frame at predetermined rate, and improving latency. Therefore, evaluating the stream of media to identify the one or more silence frames (see figure 8-9, see column 16, line 49 – column 18, line 21 evaluating latency to determine the channel quality based on silence frames or erasure frames). The person skilled in the art would recognize improving channel quality and latency would be possible with/by determining number of silence frames and Yao clearly discloses that dropping silence frame at rate of 1 frame dropped per hundred frames (see column 10, line 55 – column 12, line 50).

Further applicant argues that Yao does not disclose that the dropped frame is actually a silence frame. Examiner considers the following disclosure of Yao where Yao discloses

“silence frames, otherwise known as erasure frames, are provided to a voice decoder in order to minimize the disruption in voice quality to a

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user. If the receive buffer overflows, or becomes relatively large, latency is increased. Therefore, when the communication channel quality becomes degraded, it is desirable to drop frames at an increased rate at transmitter 400, so that neither queue 408 nor the receiver buffer grow too large, increasing latency to intolerable levels." (see column 12, lines 21-25)

Further, applicant argues (argument #3 and 4 from remarks pages 14-15) that such suppressing can be achieved without dropping silence frame is not reasonable and based on examiner own assertion are not persuasive. Examiner respectfully asserts that Yao provided a reasonable fact why the person skilled in the art would drop frames and such dropping would lead to improve the latency in packet transferring. If the suppressing, as argued by applicant, is reducing the silence frame, then examiner respectfully reminds it will also lead to improve the latency and that will give the reasonable reason why one skilled in the art would perform such dropping and hence, Yao also discloses dropping silence frames.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the action of "suppressing" silence frames within a data stream without dropping at least one silence frames from the data stream; remember no data frames or date streams are claimed in a claim language) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant continues to argue that Yao does not disclose or suggest determining whether one or more silence frames occur between successive media or non-silence frames are not persuasive as Yao clearly discloses in column 4, lines 8-40, data frames (includes silence frames, see column 12, lines 21-25) are dropped in accordance with the rate at which data frame were encoded and a processor determines communication channel latency. The person skilled in the art would clearly recognizes such suppressing includes suppressing the silence frame that is in access of a predetermined number of silence frames situated between the two successive media frame

Therefore, applicant arguments that Yao failed to drop "silence" frames is not persuasive.

Specification

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: evaluating the stream of media to identify the one or more silence frames as recited in claims 1,7,13, and 19. The applicant providing supports on June 5th, 2009 merely discloses any "evaluation of media streams" as the instant application specification only directed to media frames not media streams. Subsequently, the provided clarification on June 5th, 2009 by applicants merely evaluates the silence frames rather than evaluating media stream(s). Therefore, the objection is still maintained.

Allowable Subject Matter

5. Claims 6, 12, 18, and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 101

6. Claims 7-12 and 34 are rejected under 35 U.S.C. 101 in previous office action has been withdrawn due to claim amendment.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-5, 7-11,13-17,19-23, 25, 27, 29, 31 and 33-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Yao et al. U.S. Patent Number 6,785,262 B1 (hereinafter Yao).

As per claim 1, Yao discloses requesting a group call at a first communication device (see column 2, lines 58-60; column 7, line 40 – column 8, line 29; examiner considers wireless communication system of Figure 3 and its request to establish connection as requesting a group call at a first communication device); receiving a stream of media from the first communication device wherein said stream of media comprises of one or more silence frames; (see column 3, lines 20-21; column 8, line 63 – column 9, line 15 and column 12, lines 14- 30; examiner considers receiving data at the receiver as receiving a stream of media from the first communication device wherein said stream of media comprises of one or more silence frames);evaluating the stream of media to identify the one or more silence frames (see figure 8-9, see column 16, line 49 – column 18, line 21 evaluating latency to determine the channel quality based on silence frames or erasure frames); and automatically suppressing the one or more identified silence frames from the received stream of media (see column 3, lines 53-58 ;column 8, line 63 – column 9, line 15 and column 12, lines 14- 30; examiner considers data frames are dropped at a second, higher rate if a processor determines that communication channel latency (The person skilled in the art would clearly recognizes such suppressing includes suppressing the silence frame) has increased significantly as automatically suppressing the one or more silence frames from the received stream of media).

As per claim 2, Yao discloses said suppressing includes suppressing an initial silence frame situated before a first media frame (see column 4, lines 8-40,

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examiner considers data frames are dropped in accordance with the rate at which data frame were encoded and a processor determines communication channel latency. The person skilled in the art would clearly recognize such suppressing includes suppressing an initial silence frame situated before a first media frame).

As per claim 3, Yao discloses said suppressing includes suppressing all initial silence frames situated before a first media frame (see column 4, lines 8-40, examiner considers data frames are dropped in accordance with the rate at which data frame were encoded and a processor determines communication channel latency. The person skilled in the art would clearly recognize such suppressing includes suppressing all initial silence frames situated before a first media frame).

As per claim 4, Yao discloses said suppressing includes suppressing a silence frame situated between two successive media frames (see column 4, lines 8-40, examiner considers data frames are dropped in accordance with the rate at which data frame were encoded and a processor determines communication channel latency. The person skilled in the art would clearly recognize such suppressing includes suppressing a silence frame situated between two successive media frames).

As per claim 5, Yao discloses said suppressing a silence frame includes suppressing the silence frame that is in access of a predetermined number of silence frames situated between the two successive media frames (see column

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4, lines 8-40, examiner considers data frames are dropped in accordance with the rate at which data frame were encoded and a processor determines communication channel latency. The person skilled in the art would clearly recognize such suppressing includes suppressing the silence frame that is in access of a predetermined number of silence frames situated between the two successive media frames).

As per claim 7, Yao discloses requesting a group call at a first communication device (see column 2, lines 58-60; column 7, line 40 – column 8, line 29; examiner considers wireless communication system of Figure 3 and its request to establish connection as requesting a group call at a first communication device); receiving a stream of media from the first communication device wherein said stream of media comprises of one or more silence frames; (see column 3, lines 20-21; column 8, line 63 – column 9, line 15 and column 12, lines 14- 30; examiner considers receiving data at the receiver as receiving a stream of media from the first communication device wherein said stream of media comprises of one or more silence frames); evaluating the stream of media to identify the one or more silence frames (see figure 8-9, see column 16, line 49 – column 18, line 21 evaluating latency to determine the channel quality based on silence frames or erasure frames); and automatically suppressing the one or more silence frames from the received stream of media (see column 3, lines 53-58 ;column 8, line 63 – column 9, line 15 and column 12, lines 14- 30; examiner considers data frames are dropped at a second, higher rate if a processor

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determines that communication channel latency (inherits silence frame) has increased significantly as automatically suppressing the one or more silence frames from the received stream of media).

As per claims 8-11, claims 8-11 are computer readable medium of method claims 2-5 respectively. They do not teach or further define the limitations recited in claim 2-5 respectively. Therefore, claims 8-11 are rejected for the same reasons set forth in claim 2-5 supra.

As per claims 13-17 claims 13-17 are an apparatus claim of method claims 1-5 respectively. They do not teach or further define the limitations recited in claim 1-5 respectively. Therefore, claims 13-17 are rejected for the same reasons set forth in claim 1-5 supra.

As per claim 19, Yao discloses a receiver capable of receiving information (see column 3, lines 20-21, examiner considers receiving data at the receiver as a receiver capable of receiving information); a transmitter capable of transmitting information (see column 3, lines 3-4, examiner considers dropping data frames at transmitter as a transmitter capable of transmitting information); and a processor (see column 3, lines 12-15, examiner considers a processor located within a transmitter as a processor capable of carrying out suppressing silence frames in a stream of media) for evaluating the stream of media to identify the one or more silence frames (see figure 8-9, see column 16, line 49 – column 18, line 21 evaluating latency to determine the channel quality based on silence frames or erasure frames) and for automatically suppressing silence frames in a stream of

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media, the method comprising: receiving a stream of media from a user (see column 3, lines 20-21); and the silence frames from the received stream of media is suppressed (see column 3, lines 53-58, examiner considers data frames are dropped at a second, higher rate if a processor determines that communication channel latency (inherits silence frame) has increased significantly as the silence frames from the received stream of media is suppressed).

As per claims 20-23 claims 20-23 are an apparatus claim of method claims 2-5 respectively. They do not teach or further define the limitations recited in claim 2-5 respectively. Therefore, claims 20-23 are rejected for the same reasons set forth in claim 2-6, supra

As per claim 25, Yao discloses buffering and then forwarding the suppressed stream of media (see column 12, lines 14 – 29, buffering taking place at receiver buffer before transmitting the frames based upon receiver buffer underflow or overflow conditions).

As per claims 27, 29, and 31, claims 27, 29, and 31 do not teach or further define over the limitation as recited in claim 25. Therefore, claims 27, 29, and 31 are rejected under same scopes as discussed in claim 25, supra.

As per claim 33, Yao discloses determining whether the stream of media includes one or more silence frame between successive media frames of the stream of media, each media frame including data; and wherein the one or more silence frames are suppressed based on the determining step (see column 10, line 55 - column 12, line 50).

As per claims 34-36, they do not teach or further define over the limitation as recited in claim 33. Therefore, claim 34-36 are rejected under same scope as discussed in claim 33, supra.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. A VOICE ACTIVITY DETECTOR FOR PACKET VOICE NETWORK BY
WANG US PUBLICATION 2001/0014857 A1.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAKET K. DAFTUAR whose telephone number is (571)272-8363. The examiner can normally be reached on 7:00 - 3:30pm M-W.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. K. D./
Examiner, Art Unit 2451

/Hassan Phillips/
Primary Examiner, Art Unit 2451